



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

**NOTICE OF ALLOWANCE AND ISSUE FEE DUE**

MM12/1214

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APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/878,199	06/18/97	001	HEGRON, I	2875 12/14/99
First Named Applicant	KENJI.			
35 USC 154(b) term ext. =				0 Days.

TITLE OF INVENTION: METHOD OF MANUFACTURING A LIGHTING UNIT FOR INSPECTING A SURFACE  
(AS AMENDED)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
3	01309.08932	352-033.000	158 UTILITY	NO	\$1210.00	03/14/00

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.  
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.  
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

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**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/878.199	06/18/97	KENJI	Y 01309.08932

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EXAMINER

NEGRON.I

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 12/14/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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# Notice of Allowability

Application No.

08/878,199

Examiner

Ismael Negron

Applicant(s)

KENJI, YONEDA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

1. ☒ This communication is responsive to aggreement reached at interview held on December 2, 1999.
2. ☒ The allowed claim(s) is/are 3.
3. ☐ The drawings filed on \_\_\_\_\_ are acceptable.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the CERTIFIED copies of the priority documents have been
    1. ☒ received.
    2. ☐ received in Application No. (Series Code / Serial Number). \_\_\_\_\_.
    3. ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

A SHORTENED STATUTORY PERIOD FOR REPLY to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office Action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be available under the provisions of 37 CFR 1.136(a).

6. ☒ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☒ Applicant MUST submit NEW FORMAL DRAWINGS
  - (a) ☐ because the originally filed drawings were declared by applicant to be informal.
  - (b) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review( PTO-948) attached
    - 1) ☐ hereto or 2) ☒ to Paper No. 4.
  - (c) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the examiner.
  - (d) ☐ including changes required by the attached Examiner's Amendment / Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

## Attachment(s)

- |  |   |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____             |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____               | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment                  |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other _____  |

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**EXAMINER'S AMENDMENT**

1. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on December 8, 1999, Brian Hanlon requested an extension of time for 1 MONTH(S) and authorized the Commissioner to charge Deposit Account No. 19-0733 the required fee for this extension and authorized the following examiner's amendment.

Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

**IN THE CLAIM:**

Claim ~~3~~ (Amended) A method of manufacturing a lighting unit for inspecting a surface, the lighting unit having an opening at the center thereof for visually inspecting or taking photos of the surface to be inspected, wherein said method comprises the steps of:

holding a flexible circular printed circuit board having a concentric circular hole and a cutout which has at least two sides in a planar state, embedding a plurality of illuminants in said printed circuit board,

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jointing one side of the cutout and the other side of the cutout of said printed circuit board or holding both sides in close contact so as to form the printed circuit board into a shape of a hollow truncated cone with the illuminants placed in a side of a concave face of said printed circuit board, and

positioning a frame about said printed circuit board and retaining said circuit board in said shape of a hollow truncated cone using [a] said frame [,] so as to obtain the lighting unit in which a plurality of illuminants are arranged on the concave face of the printed circuit board formed into the shape of a hollow truncated cone.

***Allowable Subject Matter***

3. Claim 3 is allowed.

The following is an examiner's statement of reasons for allowance:

Applicant teaches a method of manufacturing a lighting unit for inspecting a surface, such method having the following steps:

- **holding a flexible circular printed circuit board having a concentric circular hole and a cutout which has at least two sides in a planar state;**
- **embedding a plurality of illuminants in the printed circuit board;**

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- **joining or holding both sides of the cutout in close contact so as to form the printed circuit board into a shape of a hollow truncated cone with the illuminants placed in the concave side; and**
- **positioning a frame about the printed circuit board and retaining the circuit board in the shape of a hollow truncated cone using the frame.**

No prior art was found disclosing individually nor teaching in combination all of the features of the applicants' invention.

**Borgert et al.** (U. S. Pat. 5,519,496) discloses an illumination system having a plurality of illuminants arranged in a dome shaped circuit board held in such dome shape by a plurality of hinges formed on the printed circuit board. However, Borgert et al. fails to disclose a frame holding the printed circuit board in the shape of a hollow truncated cone, as claimed by the applicant.

**Huang** (U.S. Pat. 5,420,773) discloses a table lamp having a flexible truncated cone structure, but fails to disclose a frame holding the flexible structure in the shape of a hollow truncated cone.

4. The application having been allowed, **formal drawings are required** in response to this Office Action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (703) 308-6086. The examiner can normally be reached on Monday-Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (703) 305-4939. The facsimile machine number for the Art Group is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

  
Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800

inr

December 9, 1999